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UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte MICHAEL T. MORMAN and THOMAS H. ROESSLER

Appeal 2008-0281
Application 10/037,457
Technology Center 3700

Decided: January 15, 2008

Before DONALD E. ADAMS, ERIC GRIMES, and JEFFREY N.
FREDMAN, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a disposable diaper, which the Examiner has rejected under 35 U.S.C. § 102(b), 35 U.S.C. § 103(a) and 35 U.S.C. § 112, second paragraph. We have jurisdiction under 35 U.S.C. § 6(b). We affirm the rejection of claims 45-46, 50-54, 56-65, 88, 90-92 and 95 under 35 U.S.C. § 102(b) as being unpatentable over Stevens '598 and the rejection of claims 88-90 under 35 U.S.C. § 102(b), as being anticipated by Stevens '709. We reverse the

rejection under 35 U.S.C. § 112, second paragraph and the rejection of claim 89 under 35 U.S.C. § 102(b) as being unpatentable over Stevens '598.

BACKGROUND

“[C]onventional diapers employ various constructions in order to increase the stretchability of the diaper to better fit the wearer and to be resilient to the different stresses imposed by the size and movements of the wearer without compromising the comfort and fit of the article on the wearer” (Specification 1). According to the Specification, “absorbent articles that utilize a multitude of stretchable elastomeric components in [their] construction may be more costly and complex as stretchable materials can be more difficult to process during manufacturing” (Specification 1).

Appellants teach that

the present invention provides a disposable absorbent article comprising a stretchable multilayer chassis that defines an inner surface and an outer surface, an absorbent body having an inner surface and an outer surface wherein the stretchable multilayer [chassis] is . . . stretchable in at least the cross-machine direction, and the absorbent body is affixed to the inner surface of the multilayer stretchable chassis such that in use, the inner surface of the absorbent body lies against the wearer and the stretchable multilayer chassis stretches about the wearer independently in at least the cross-machine direction.

(Specification 2.)

The Claims

Claims 45, 46, 50-54, 56-68, 76-85, and 88-95 are on appeal.

The claimed subject matter is reflected in representative claims 66, 88, 89, and 95, which read as follows:

66. A disposable absorbent article having a longitudinal axis and a lateral axis, said article comprising:
a stretchable multilayer chassis having an inner surface and an outer surface, said chassis comprising:
an elastic chassis liner defining the inner surface of the chassis and being stretchable at least laterally; and
an elastic outer cover secured to the chassis liner and defining the outer surface of the chassis, said outer cover being stretchable at least laterally;
an absorbent body having an inner surface, an outer surface overlaying the inner surface of the chassis, and longitudinal ends, the absorbent body comprising:
an absorbent core; a tissue wrapsheet wrapped about the absorbent core; and a surge management layer; and
an absorbent body liner secured at least in part to the chassis liner, said absorbent body being disposed between the absorbent body liner and the chassis liner with the surge management layer disposed between the tissue wrapsheet and the absorbent body liner;
the absorbent body liner extending longitudinally to the longitudinal ends of the absorbent body and having an inner surface and an outer surface facing the inner surface of the absorbent body, said inner surface of the absorbent body liner being uncovered at the longitudinal ends of the absorbent body to permit contact of the absorbent body liner with a wearer of the article at the longitudinal ends of the absorbent body, the absorbent body liner and absorbent body being sized relative to the chassis such that a portion of the chassis is uncovered by the absorbent body liner and absorbent body to permit contact of the inner surface of the chassis with the wearer of the article.

88. A disposable absorbent article comprising:
a stretchable multilayer chassis having a longitudinal axis, a lateral axis, an inner surface, an outer surface, an elastic chassis liner defining the inner surface of the chassis and being stretchable at least laterally, and an elastic outer cover secured to the chassis liner and

defining the outer surface of the chassis, said outer cover being stretchable at least laterally;

an absorbent body having an inner surface, an outer surface and longitudinal ends, said absorbent body being affixed along at least a portion of its outer surface to the inner surface of said chassis whereby the inner surface of the absorbent body lies against a wearer of the article during use, said chassis being stretchable about the wearer independent of the absorbent body; and

at least two leg elastic members spaced laterally from each other and interposed between the elastic outer cover and the elastic chassis liner.

89. The disposable absorbent article set forth in claim 88 further comprising at least one waist elastic member extending longitudinally substantially less than the length of the chassis and interposed between the elastic outer cover and the elastic chassis liner.

95. A disposable absorbent article comprising:

a stretchable multilayer chassis having a longitudinal axis, a lateral axis, an inner surface, and an outer surface; said chassis being stretchable at least laterally; and

an absorbent body having an inner surface, an outer surface facing the inner surface of the chassis, and longitudinal ends, said absorbent body being affixed along at least a portion of its outer surface to the inner surface of said chassis whereby the inner surface of the absorbent body lies against a wearer of the article during use, the inner surface of the absorbent body being uncovered at the longitudinal ends thereof to permit contact of the absorbent body with the wearer of the article at the longitudinal ends of the absorbent body, the absorbent body being sized relative to the chassis such that a portion of the chassis is uncovered by the absorbent body to permit contact of the inner surface of the chassis with the wearer of the article, said chassis being stretchable about the wearer independent of the absorbent body.

The Issues

The Examiner relies on the following prior art references to show

unpatentability¹:

Stevens et al., U.S. Patent 4,892,598, January 9, 1990 (hereafter “Stevens ‘598”).

Stevens, U.S. Patent 4,756,709, July 12, 1988 (hereafter “Stevens ‘709”).

Vogt et al., U.S. Patent 6,149,638, November 21, 2000 (hereafter “Vogt”).

Bishop et al., U.S. Patent 5,486,166, January 23, 1996 (hereafter “Bishop”).

The rejections as presented by the Examiner are as follows:

- A. Claims 45-46, 50-54, 56-68, 76-85, and 88-95 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite.
- B. Claims 45-46, 50-54, 56-65, 88-92, and 95 stand rejected under 35 U.S.C. § 102(b), as being anticipated by Stevens ‘598.
- C. Claims 66-68, 76-85, and 93-94 stand rejected under 35 U.S.C. § 103(a), as being obvious over Stevens ‘598, Vogt, and Bishop.
- D. Claims 88-90 stand rejected under 35 U.S.C. § 102(b), as being anticipated by Stevens ‘709.

A. § 112, second paragraph

The Examiner’s position is that

Appellant[s] define[] the terminology “affixed” as including both direct and indirect affixing. Therefore, if a portion of a

¹ The Examiner also cited Stevens, U.S. Patent 4,701,172; Vander Wielen et al., U.S. Patent 4,720,415; and Morman, U.S. Patent 4,657,802. However no specific rejection appears to rely upon these references and these references appear cumulative.

first structure is “affixed” to a second structure, the entire first structure is “affixed” because its entirety is either directly or indirectly joined to the second structure. Therefore, the first structure is either entirely affixed or not affixed at all as “affixed” is defined. Therefore it is unclear how the absorbent body is “affixed”, i.e. *secured*, along “at least a portion” or “at least in part”

(Answer 9.)

Appellants argue “the specification further makes it clear that the definition of affixed is intended to include an embodiment in which the absorbent body is affixed along less than entire surface area between it and the chassis” (App. Br. 10).

“Breadth is not indefiniteness.” *In re Gardner*, 427 F.2d 786, 788 (CCPA 1970). Rather, “[a] claim is indefinite if, when read in light of the specification, it does not reasonably apprise those skilled in the art of the scope of the invention.” *SmithKline Beecham Corp. v. Apotex Corp.*, 403 F.3d 1331, 1352 (Fed. Cir. 2005). We find that the term “affixed”, when read in light of both the specific definition in the Specification and the complete disclosure of the Specification, is simply broad (*see* Specification 6, 31). There is no limitation in the definition at page 6 that requires material being affixed to be completely affixed or not at all affixed (*see* Specification 6). This definition is broad enough to include partially affixed structures, particularly in light of the Specification (*see* Specification 31, ll. 8). We therefore reverse the rejection for indefiniteness.

B. § 102(b) over Stevens '598

The Examiner's position is that the Stevens '598 reference teaches the entire claimed structure, particularly that, "the chassis is stretchable independent of the absorbent body" (Answer 5).

Appellants contend

the reference fails to show or suggest a disposable absorbent article comprising an absorbent body affixed along at least a portion of its outer surface to the inner surface of the chassis, whereby the inner surface of the absorbent body lies against a wearer of the article during use, the inner surface of the absorbent body is uncovered at the longitudinal ends thereof to permit contact of the absorbent body with the wearer of the article at the longitudinal ends of the absorbent body, and the absorbent body is sized relative to the chassis such that a portion of the chassis is uncovered by the absorbent body to permit contact of the inner surface of the chassis with the wearer of the article.

(App. Br. 15.)

In view of these conflicting positions, we frame the issue before us as follows:

Does Stevens '598 teach an inner absorbent body which is uncovered at the longitudinal ends to permit contact of the absorbent body and inner surface of the chassis with the wearer?

Findings of Fact

1. Stevens '598 teaches a disposable absorbent article with a stretchable multilayer chassis that has a longitudinal axis, a lateral axis, an inner surface and an outer surface (Stevens '598, col. 5, ll. 24-35, figure 1)
2. Stevens '598 teaches that the chassis is laterally stretchable (Stevens '598, col. 6, ll. 66-68).

3. Stevens '598 teaches an absorbent body that is affixed, along at least a portion of its outer surface, to the chassis (Stevens '598, col. 5, ll. 49-65).

4. Stevens '598 teaches that the inner surface of the absorbent body is uncovered and in contact with the body to absorb wastes (Stevens '598, figures 14, 16, col. 8, ll. 13-16).

5. Stevens '598 discloses that a portion of the chassis may contact the wearer of the article (*see* Stevens '598, figure 14, where number 12 is the chassis as in col. 5, l. 29 and would contact the wearer).

6. Stevens '598 discloses that the chassis may stretch independently of the absorbent body (*see* Stevens '598, col. 8, ll. 16-24).

7. Stevens '598 teaches leg elastic members spaced on each side of the absorbent pad or laterally (Stevens '598, figure 2, number 62 and col. 7, ll. 60-64).

8. Stevens '598 teaches that the leg elastic members are placed between the outer chassis and the liner of the absorbent pad (Stevens '598, figures 2 and 3, where number 62 is placed between the chassis and number 36, the impermeable backing means).

9. Stevens '598 teaches that the impermeable backing means "may include a flexible, three-dimensional shape-retaining means 57 for maintaining the insert means 32 in a three-dimensional, body-conforming orientation during wear, as shown in figure 4" (Stevens '598, col. 7, ll. 12-16).

10. Stevens '598 discloses supplemental elastic gathers at the waist (*see* Stevens '598, col. 7, ll. 64-67, col. 8, ll. 1-10).

Discussion of Claim 95 - § 102(b) over Stevens '598

In analyzing claim 95, we first interpret the meaning of the limitation the inner surface of the absorbent body being uncovered at the longitudinal ends thereof to permit contact of the absorbent body with the wearer of the article at the longitudinal ends of the absorbent body, the absorbent body being sized relative to the chassis such that a portion of the chassis is uncovered by the absorbent body to permit contact of the inner surface of the chassis with the wearer of the article.

(Claim 95.) In interpreting this limitation, we must determine how to read “longitudinal ends”. The Specification defines “longitudinal” but does not define what is the “end” (*see* Specification 6). There is no requirement in the Specification that the end be at the very terminal part of the diaper and the only mention of longitudinal ends in the Specification does not narrow this interpretation (*see* Specification 16).

We therefore interpret this limitation as requiring that at some point near the longitudinal edge of the diaper, the absorbent body does not completely cover the chassis and permits contact of both the absorbent body and the chassis with the wearer. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000) (“[D]uring examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.”).

We find that Stevens '598 teaches a disposable diaper comprising all of the required elements of claim 1 including a region where the chassis can directly contact the wearer (*see* FF 1-6). In particular, Stevens '598 teaches a disposable diaper that has a chassis that is laterally stretchable and will contact the wearer (FF 1, 5).

We reject Appellants' argument that Stevens '598 does not disclose a structure where the inner surface of the diaper chassis will contact the wearer. As we discussed above, figure 14 shows an orientation where a region of the chassis, number 12, that is towards the "longitudinal end" will contact the wearer (FF 5).

Discussion of Claim 88 - § 102(b) over Stevens '598

The limitation at issue in claim 88 is whether Stevens '598 teaches "at least two leg elastic members spaced laterally from each other and interposed between the elastic outer cover and the elastic chassis liner" (App. Br. 32). In interpreting this limitation, we analyze the term "elastic chassis liner". The Specification notes "the stretchable chassis liner 10 is elastic" (Specification 15). However, the Specification defines elastic as "refer[ring] to that property of a material where upon removal of an extending force, it is capable of substantially recovering its original size and shape and/or exhibits a significant retractive force" (Specification 5).

We therefore interpret this limitation as requiring that the chassis liner cover a portion of the leg elastic members and that the liner be somewhat elastic; i.e., have some retraction after removal of an extending force. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000) ("[D]uring examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.").

We find that Stevens '598 teaches a disposable diaper with a liner that covers the leg elastic members, and that has some ability to retract (*see* FF 1-9). In particular, we note that Stevens '598 teaches a barrier that is shown to be placed over the leg elastic members (FF 8). Stevens teaches that this

barrier “may include a flexible, three-dimensional shape-retaining means 57 for maintaining the insert means 32 in a three-dimensional, body-conforming orientation during wear, as shown in figure 4” (Stevens ‘598, col. 7, ll. 12-16).

We reject Appellants’ argument that Stevens ‘598 does not disclose a structure where the leg elastic member is held between an elastic outer cover and the elastic chassis liner since those elements are present in Stevens ‘598 (*see* FF 8-9).

Discussion of Claim 89 - § 102(b) over Stevens ‘598

With regard to the elastic chassis liner, claim 89 does not require that the chassis liner cover the entire outer cover, but does require that the elastic member is placed between an outer cover and an inner liner. We therefore interpret claim 89 as requiring that a chassis liner cover the waist elastic members on both sides. No specific amount of coverage is required. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000).

We cannot find a specific teaching in Stevens ‘598 which teaches a disposable diaper with a waist elastic band that is covered between two liners, even though Steven’s 598 does disclose elastic waist bands (*see* FF 10). Accordingly, the Examiner has not made a *prima facie* case of unpatentability under 35 U.S.C. § 102(b).

For the foregoing reasons, we affirm the rejection of claims 88 and 95 under 35 U.S.C. § 102(b) as being unpatentable over Stevens ‘598. We reverse the rejection of claim 89 under 35 U.S.C. § 102(b) as being unpatentable over Stevens ‘598. Claims 45-46, 50-54, 56-65, and 90-92 fall together with claims 88 and 95.

C. § 103(a) over Stevens '598, Vogt and Bishop

In addition to Stevens '598, the Examiner relies upon Vogt and Bishop to support his 35 U.S.C. § 103(a) rejection of claims 66-68, 76-85, and 93-94. These claims additionally comprise a "surge management layer." Bishop discloses an absorbent article with a surge management layer (Bishop, col. 3, ll. 12-36).

Appellants do not argue this limitation is missing from the prior art teachings but rather rely upon their prior arguments relating to the anticipation rejection of Stevens '598. For the reasons discussed above, those arguments are unpersuasive. Thus, we affirm the 35 U.S.C. § 103(a) rejection of claims 66-68, 76-85, and 93-94 as obvious over Stevens '598, Vogt and Bishop.

D. § 102(b) over Stevens '709

In addition to Stevens '598, the Examiner separately rejects claims 88-90 over Stevens '709. In Stevens '709, the presence of a hem is clearly shown and the hem is discussed by Appellants (App. Br. 21).

As discussed *supra*, claim 89 does not require that the chassis liner cover the entire outer cover, but does require that the elastic member is placed between an outer cover and an inner liner. We therefore interpret claim 89 as requiring that a chassis liner cover the waist elastic members on both sides. No specific amount of coverage is required. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000). We find that Stevens '709 teaches a disposable diaper with a waist elastic band that is covered between two liners of a hem (Stevens '709, figure 12 and col. 8, ll. 18-30). We reject Appellants' argument that the teaching of a hem does not anticipate

the claim. The claim imposes very few requirements on the chassis liner: specifically that it is elastic in a lateral direction, that it defines an inner surface of the chassis and that interposed between the chassis liner and the chassis is the waist elastic member (*see* Claims 88 and 89). The folded over portion of a hem, as shown in figure 12, has an elastic member 62 placed between the elastic outer cover 46 and an elastic chassis liner 24, and therefore meets each of the claimed requirements and therefore anticipates claims 88-89. Claim 90 falls with claim 88.

SUMMARY

We affirm the rejections of claims 88 and 95 as anticipated by Stevens ‘598. We reverse the rejection of claim 89 as anticipated by Stevens ‘598. We affirm the rejection of claims 88-90 as anticipated by Stevens ‘709. We also affirm the rejection of claims 66-68, 76-85, and 93-94 as obvious in view of Stevens ‘598, Vogt, and Bishop. Pursuant to § 41.37(c)(1)(vii)(2006), we also affirm the 35 U.S.C. § 102(b) rejection of claims 45-46, 50-54, 56-65, and 90-92, as these claims were not argued separately. We reverse the 35 U.S.C. § 112, second paragraph, rejection of claims 45-46, 50-68, 76-85, and 88-95.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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